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10/580,006	05/19/2006	Lars Kristensen	IPB.026	7629

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MEREK, BLACKMON & VOORHEES, LLC
673 S. WASHINGTON ST
ALEXANDRIA, VA 22314

EXAMINER

FONSECA, JESSIE T

ART UNIT	PAPER NUMBER
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3637

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/580,006	Applicant(s) KRISTENSEN, LARS	
	Examiner Jessie Fonseca	Art Unit 3637	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 10 and 13-17 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 10 and 13-17 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 May 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Drawings

The drawings are objected to because Fig. 0 is a duplicate of Fig. 7. In addition, applicant is request to renumber the drawings, as it's improper to designate a figure number using "0". Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

The title of the invention is objected to because the title recites the term "ROOFWINDOW" twice.

The following title is suggested: DRAINAGE SYSTEM IN A ROOFWINDOW.
Correction is required. See MPEP § 608.01(b).

The disclosure is objected to because of the following informalities:

Lines 2-4 of page 3: The language used makes it difficult to ascertain what is trying to be conveyed to the reader.

Appropriate correction is required.

Claim Objections

Claim 1 objected to because of the following informalities:

Line 8 of the claim: It appear the line should read "surface extending along" instead of "surface, extends along". Appropriate correction is required.

Claim 14 is objected to because of the following informalities:

Line 3 of the claim: "window-frame" should read as "window frame"

Line 3 of the claim: "sash-frame" should read as "sash frame"

Appropriate correction is required.

Claim15 objected to because of the following informalities:

Line 4 of the claim: "top frame members" should read as "top frame member"

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 10 and 13-17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 10 recites the limitation "at least one drainage groove" which means only 1 groove in line 4 of the claim. It's improper to set forth 2 grooves following said language.

Claim 10 recites the limitation "inner walls" in line 8 of the claim. There is insufficient antecedent basis for this limitation in the claim.

Claim 10 recites the limitation "inner surface" in line 9 of the claim. There is insufficient antecedent basis for this limitation in the claim.

Claim 10 recites the limitation "outer walls" in line 10 of the claim. There is insufficient antecedent basis for this limitation in the claim.

Claim 10 recites the limitation "outer surface" in line 11 of the claim. There is insufficient antecedent basis for this limitation in the claim.

With regards to claim 13: It's improper to recite both the window frame and the sash frame having more than one groove, when only one groove has been recited as seen in claim 1.

Claim 14 recites the limitation "top surface" in line 2 of the claim. There is insufficient antecedent basis for this limitation in the claim.

Claim 15 recites the limitation "and/or" in line 5 of the claim, which renders the scope of the claim unclear. Applicant should amend the claims to present a Markush format.

Claim 15 recites the limitation "cross section" in lines 2, 4, and 6 of the claim. There is insufficient antecedent basis for this limitation in the claim.

Claim 15 recites the limitation "drainage-groove surface" in lines 2, 4, 6 and 9 of the claim. There is insufficient antecedent basis for this limitation in the claim.

Claim 15 recites the limitation "top surface" in lines 8, 11, 12 and 16 of the claim. There is insufficient antecedent basis for this limitation in the claim.

Claim 16 recites the limitation "top surface" in lines 2 and 10 of the claim. There is insufficient antecedent basis for this limitation in the claim.

Claim 16 recites the limitation "bottom-frame covering" in lines 6 and 7 of the claim. There is insufficient antecedent basis for this limitation in the claim.

Claim 16 recites the limitation "drainage water" in lines 8 and 11 of the claim. There is insufficient antecedent basis for this limitation in the claim.

With regards to claim 16: It's improper to recite the "flashing member" twice when it has already been recited as seen in line 2 of claim 10.

Claim 17 recites the limitation "lower end portion" in line 1 of the claim. There is insufficient antecedent basis for this limitation in the claim.

Claim 17 recites the limitation "top surface" in line 5 of the claim. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 10 and 13-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nielson (US 5,644,875) in view of Kaminaga et al. (5,105,593), and in further view of Japanese Patent (JP 6,158,793 A).

With regards to claim 10: Nielson discloses a window comprising a window frame (4), a sash frame (2), a covering (3a) and a flashing member (25), each of the window frame (4) and the sash frame (2) including a top frame member, a bottom frame member and two lateral frame members (fig. 1), the roof window comprising at least one drainage groove (15a or 15b), characterized in that a second drainage groove (15a or

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15b) placed in the walls of the sash frame (2) (fig. 1, fig 2, and col. 4, lines 11-15), wherein the drainage groove (15b) of the sash frame (2) has a concave surface (fig. 1 and 2), and includes another flange (10) protruding from the outer surface of the sash frame (2), but fails to the drainage grooves extend along the outer walls of the sash frame. However, Kaminaga et al. discloses a drainage groove (28) extending along the outer frame, so as to drain water from the drainage groove to the exterior (col. 3, lines 28-42). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made modify the window of Nielson to have a drainage groove on the outer walls of the sash frame as taught by Kaminaga et al. in order to mitigate the intrusion of water within the window frame.

Nielson, in view of Kaminaga et al., discloses a flange (A) protruding outwardly from the inner surface of the window frame (4 – Nielson), but fails to disclose a first drainage groove having a concave surface, extending along the inner walls of the window frame, and characterized in that a first drainage groove is placed in the walls of the window frame. However, Japanese Patent discloses first drainage groove (4c, 3c) having a concave surface, extending along the inner walls of the window, where the channels having flanges protruding from the inner surface of the window frame (3, 4) (fig. 3 and 4). Therefore, it would have been obvious to one ordinary skill in the art at the time of the invention was made to modify the window of Nielson, in view of Kaminaga, to include drainage grooves along the inner walls of the window frame as taught by Japanese Patent in order to provide means channeling water away from the window structure.

With regards to claim 13: Nielson, in view of Kaminaga et al. and Japanese Patent, wherein the first drainage grooves (4c, 3c - Japanese Patent) formed in the inner surface of the window frame (4 - Nielson), constitutes a complex drainage channel for the window frame (4 - Nielson). The second drainage grooves (15b or 15b of Nielson) formed in the outer surface of the sash frame (2 - Nielson) constitutes another complex drainage channel for the sash frame (2 - Nielson) as per the modification above, and wherein the complex drainage channel for the window frame (4 - Nielson) comprises the drainage grooves (4c, 3c - Japanese Patent) formed with the lateral and bottom members of the window frame (4 - Nielson) (par. 0005 of applicant's translation) as per the modification of claim 10 , while the complex drainage channel for the sash frame (2 - Nielson) comprises the drainage grooves (15b or 15b of Nielson.) formed within the lateral and bottom members of the sash frame (2 - Nielson) (fig. 1 and 2 - Nielson) as per the modification of claim 10.

With regards to claim 14: Nielson, in view of Kaminaga et al. and Japanese Patent, further disclose a first sealing surface on the top surface of the window-frame flange (A - Nielson) and a second sealing surface on the bottom surface of the sash-frame flange (B - Nielson), with a sealing element (C - Nielson) sandwiched between the first and second sealing surfaces (fig. 3), wherein the drainage groove (4c, 3c – Japanese Patent) of the window frame (4) is located correspondingly underneath the drainage groove (15a or 15b)- Nielson) of the sash frame (2 - Nielson) as per the modifications above, with the first sealing surface facing the second sealing surface (fig. 3 – Nielson). Water overflowing from the sash-frame drainage groove going into

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the window-frame drainage groove is related to an intended use and is given little patentable weight.

With regards to claim 15: Nielson, in view of Kaminaga et al. and Japanese Patent, further discloses the cross section of the drainage groove (15a, 15b) surface of the lateral frame members of the window frame (4 – Nielson) is formed by a combination of linear sections and curved sections (fig. 2 – Nielson) as per the modification of claim 10. The cross section of the drainage groove (4c, 3c - Japanese Patent) surface of the top frame members of the window frame (4 – Nielson) is formed by a combination linear sections and curved sections (fig. 3 and 4 – Japanese Patent), wherein the cross section of the drainage-groove (15a and 15b) surface of the lateral frame member of the sash frame (2- Nielson) comprises a portion of the outer wall surface of the sash frame (2- Nielson) (fig. 2 - Nielson) and a portion of the top surface of the flange (B) of the sash frame (2- Nielson), wherein the top surface is capable of being inwardly inclined down when installed on a sloped roof. The cross section of the drainage-groove (22) surface of the top frame member of the sash frame (2- Nielson) comprises of a portion of the outer wall surface of the sash frame (2- Nielson) (fig. 2 – Nielson) as per the modification of claim 10. A portion of the top surface of the flange (19) of the sash frame (2- Nielson), wherein the top surface is flat (fig. 3 of Nielson).

The top of the inner surface of the bottom frame member (2b) of the window frame is provided with a separate reservoir (22 – Nielson) capable of receiving rain, dew and condensate from the pane, wherein the bottom surface of the separate reservoir is flat and ended with a flange (19 -Nielson) formed with the inner surface of

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the bottom frame member (2b - Nielson) of the window frame (4 - Nielson), wherein the top surface of the flange (19 -Nielson) defines a sealing surface facing a corresponding sealing surface defined on the bottom frame member (2b -Nielson) of the sash frame (2 Nielson), with a sealing element (20 - Nielson) sandwiched between the sealing surfaces (fig. 1), wherein the separate reservoir (22 - Nielson) ends with the flanges of the drainage grooves (15a, 15b) of the lateral frame members of the window frame (col. 4, lines 5-10 of Nielson).

With regards to claim 16: Nielson, in view of Kaminaga and Japanese Patent, wherein a horizontal drainage groove (22) is positioned on the top surface of the bottom frame member of the sash frame (2 - Nielson) and communicates with two exits placed at both ends of the lateral frame members (2a - Nielson) of the sash frame (2-Nielson) and communicates with a flashing member (col. 3, lines 5-10) as per the modification of claim 10. A mounting groove (18) is formed in the bottom frame member (2b) of the window frame (4 - Nielson), with an end of the bottom frame covering (25) and an end of the flashing member (5b) hanging that mounting groove (D) via the sealing member (C), and the bottom-frame covering (25) overlaps the flashing member (5b), The drainage water from the window frame can be discharged from the covering to the flashing member is related to an intended use and is given little patentable weight The drainage groove (15a, 15b - Nielson) of the lateral frame members (2a - Nielson) of the sash frame (2 - Neilson) extends to the top surface of the bottom frame member (2b) of the sash frame, from which the drainage water can be discharged to the flashing member (25) (col. 4, lines 5-10 of Nielson).

With regards to claim 17: Nielson, in view of Kaminaga and Japanese Patent, further discloses the lower end portion of the drainage groove (15b - Nielson) has a width which is reduced as the position for measuring the width approaches the bottom member of the window frame (4 - Nielson), wherein the lower end portions of the drainage grooves (15a, 15b) on the lateral frame members (2a) of the sash frame (2 - Nielson) have a curvature upwardly towards the top surface of the bottom frame member (2b) of the sash frame (2 - Nielson) (fig. 1, 2, and col. 4, lines 11-23). Nielson, in view of Kaminaga and Japanese Patent, fails to disclose the lower ends of the drainage grooves have a width which is reduced as the position for measuring the width approaches the bottom member of the window frame. However, it would have obvious one of ordinary skill in art to provide the drainage groove (15b) configuration of Nielson, so as to provide uniform drainage structure for efficient drainage.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The following prior art all disclose roof windows:

Minter (US 4,570,393)

Sampson et al. (US 4,987,705)

Verby et al. (US 5,669,186).

Moller et al. (US 5,913,785)

Lindgren (US 6,286,267)

Dyrby et al. (US 6,578,326)

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jessie Fonseca whose telephone number is (571)272-7195. The examiner can normally be reached on M-F 8:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lanna Mai can be reached on (571)272-6867. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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